

REMARKS:

In the foregoing amendments, claim 1 was amended by changing the transitional phrase from "which consists essentially of" to "which consists of." The foregoing amendments were made to clarify what was already implied in applicant's claims and these amendments are not narrowing amendments and were not made for reasons substantially related to patentability presented. In addition, the foregoing amendment to claim 1 places the application in condition for allowance. Therefore, applicant respectfully requests that the foregoing amendment be entered under the provisions of 37 C.F.R. §1.116(a) for the purposes of placing the application in condition for allowance or for the purposes of appeal.

Claims 1-8 remain in the application for consideration by the examiner. A formal allowance of these claims is respectfully requested for at least the following reasons.

Claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. patent publication No. US 2002/0164263 A1 of Harris *et al.* (Harris '263). Claims 5-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Harris '263 in view of the allegedly admitted prior art ("AAPA") at line 16-20 in the background section of the specification of the present application. These rejections are set forth on pages 4-7 of the Official action. Applicant respectfully submits that the inventions defined in claims 1-8 are patently distinguishable from the teachings of Harris alone or taken together with the AAPA within the meaning of 35 U.S.C. §102(b) or 35 U.S.C. §103(a) for at least the following reasons.

In the previous Office action, applicant's claims were rejected under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) over U.S. patent publication No. US 2003/0091459 A1 of Harris *et al.* (Harris '459). In the outstanding Office action, the examiner changed these rejections to be based on Harris

'263, as mentioned above. The teachings of Harris '263 and Harris '459 are similar. Accordingly, the following distinguishing aspects of the presently claimed invention equally distinguish applicant's claims from the teachings of Harris '263 and Harris '459.

Applicant respectfully submits that the amounts of Mo, Re and Hf included in the alloy of Harris '263 are excluded from the present claims by the transitional phrase "which consists of." Most significantly, the presently claimed invention is patently distinguishable from Harris '263 because applicant's claims exclude the amounts of Re and Hf required in Harris '263.

The transitional phrase "which consists of" in present claim 1 excludes, for example, the Re required in Harris for reasons including:

1) The alloy proposed by Harris '263 contains about 3% Re as an essential element. Within the teachings of Harris '263, it is necessary to add Re to the alloy proposed therein for the purpose of improving rupture property. Therefore, Re cannot be removed from the alloy proposed by Harris '263 within the meaning of 35 U.S.C. §102 or 35 U.S.C. §103, so as to arrive at the presently claimed invention. On the other hand, the present claimed alloy contains no Re, but achieves high strength.

2) Re is a very expensive metal. For this reason, the presently claimed invention has an advantage over the alloy proposed by Harris '263, simply because Re is excluded. An important characteristic of the presently claimed invention, as discussed in applicant's specification disclosure, is that it has a lower cost than alloys containing Hf or Re, which are expensive. Accordingly, the addition of Re and Hf to the presently claimed invention will increase its cost, which is a significant basic and novel characteristic of the presently claimed invention. The presently claimed invention

provides an alloy having properties similar to the Hf-containing alloys, but at a reduced cost, which is a significant advantage.

3) Due to addition of a certain amount of Re in Harris '263, the Cr-content therein is limited to 5.3% at the highest. This is because additional amounts of Re will cause formation of the harmful TCP phase. In the presently claimed alloy, which does not require Re, may contain higher amounts of Cr, and thus, oxidation resistance of the alloy can be improved.

4) The alloy of Harris '263 is useful for making a "single crystal casting." On the other hand, the alloy of the present invention is not intended to be use as a cast product of single crystal. Therefore, properties necessary in the alloy of Harris '263, such as those obtained by the inclusion of Re, are not necessary in the presently claimed invention.

For at least the foregoing reasons, applicant respectfully submits that the transitional phrase "which consists of" distinguishes the presently claimed invention from the teachings of Harris '263, because it excludes the Re that is required in Harris '263. In accordance with the foregoing amendments and remarks, applicant respectfully submits that the presently claimed inventions are patently distinguishable from the teachings of Harris '263 alone or taken together with the AAPA within the meaning of 35 U.S.C. §102 and/or 35 U.S.C. §103. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejections of the present claims over these teachings as set forth in the outstanding Office action.

It appears that a reason for the change in the rejection from Harris '459 to Harris '263 was the reliance on comparison alloys CM 247 LC and CM 186 LC in table 1 of Harris '263. The Official action stated that these comparison alloys of Harris '263 inherently satisfying both the Al+Ti+Ta formula and the M-value formula of applicant's claims. However, the undersigned

calculated the Al+Ti+Ta for alloys CM 247 LC and CM 186 LC to be 9.5% and 9.8%, respectively, which is outside the range of 12.0-15.5% in claim 1. Thus, alloys CM 247 LC and CM 186 LC do not satisfy the Al+Ti+Ta formula of applicant's claims. For at least this reason, applicant respectfully submits that the inventions defined in 1-8 are patently distinguishable from the teachings of Harris '263.

Since the rejection of claims 1-4 was made under §102(b), the alloys CM 247 LC and CM 186 LC of Harris '263 must disclose the Al+Ti+Ta formula, as required in the present claims, or the claims are patently distinguishable therefrom under 35 U.S.C. §102(b). Since the alloys CM 247 LC and CM 186 LC of Harris '263 do not contemplate or suggest the Al+Ti+Ta formula, as required in the present claims, applicant respectfully submits that the inventions defined in the present claims are patently distinguishable from the teachings of Harris '263.

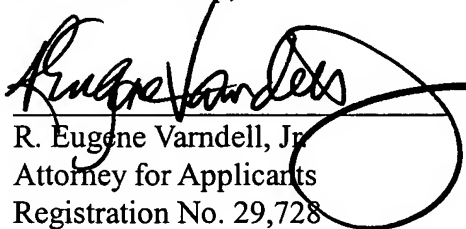
Still further, it is respectfully noted that the teachings of Harris '263 proposed narrow ranges for the alloying elements required therein. For example, Harris '263 prefers 4.3-5.3% Cr, whereas present claim 1 requires 5.9-10% Cr. Since the teachings of Harris '263 propose amounts of chromium (Cr) completely outside the range set forth in the present claims, applicant respectfully submits that these teachings cannot motivate one of ordinary skill in the art to the alloy defined in the present claims including amounts of Cr completely different from those proposed therein. For this reason alone, applicant respectfully submits that the inventions defined in claims 1-8 are patently distinguishable from the teachings of Harris '263 alone or taken together with the AAPA. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejections of the present claims over these teachings.

At least for the foregoing reasons, applicant respectfully submits that the presently claimed inventions are patently distinguishable from the teachings of Harris '263 alone or taken together with the AAPA within the meaning of 35 U.S.C. §102 and/or 35 U.S.C. §103. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejections of the present claims over these teachings as set forth in the outstanding Office action.

Based on the above, a formal allowance of claims 1-8 is respectfully requested. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 50-1147.

Respectfully submitted,  
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